UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/961,147	09/24/2001	Takushi Fujita	1573.1007	5366

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ART UNIT	PAPER NUMBER
2174	4

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>24 September 2001</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-25</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-25</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>24 September 2001</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>9/24/01</u>.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

Specification

1.   The disclosure is objected to because of the following informalities:

  a) page 1, line 26: "above-descried" should be changed to --above-described--

  b) page 5, line 4: "filed" should be changed to --field--

  c) page 8, line 28: "filed" should be changed to --field--

  d) page 14, line 7: "stores" should be changed to --store--

  e) page 24, line2: "will not completed" should be changed to --will not be

completed--

  f) page 26, line23: "generates" should be changed to --generate--

  g) page 32, line 15: "objets" should be changed to --objects--.

Appropriate correction is required.

Drawings

2.   The drawings are objected to because in FIG.10, while it is shown in step S604 as

"DELTE", should be changed to --DELETE--.   Correction is required.

Claim Objections

3.   Claim 6 is objected to because of the following informalities: the phrase "in form of"

should be changed to --in the form of--.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The claims are generally narrative and indefinite, failing to conform with current U.S.

practice. They appear to be a literal translation into English from a foreign document and are

replete with grammatical and idiomatic errors.

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5.   Claims 1-4, 6-8, 10-11, 13-18, 20-22 and 24-25 are rejected under 35 U.S.C. 102(e) as

being anticipated by Robertson et al. ("Robertson", US 6,486,895).

As per claim 1, Robertson teaches an information processing apparatus for displaying a

plurality of linked information objects in a virtual space in accordance with visual field data, said

visual field defining a visual field in said virtual space in accordance with visual field data, a

particular information object representing a content of a particular content type, said visual field

data defining a visual field in said virtual space, said apparatus comprising:

holding means for holding, in an executable manner, intermediate data generating means

specific to said content type for generating intermediate data for display (FIG.2, step 202,

generate page objects for each web page, col.5, lines 50-52), and display image generating

means specific to said content type for generating a display image from said generated

intermediate data (FIG.2, step 204, *render and display*, col.5, lines 57-58); first means for

causing said intermediate data generating means to generate intermediate data for displaying said

particular information object, when it is determined that said intermediate data of said particular

information object should be generated (col.10, lines 61-64, *object generation circuitry*); and

second means for causing said display image generating means to generate a display image of

said particular information object from said generated intermediate data, that said particular

information object should be displayed (col.11, lines 5-10, *displaying page object*).

As per claim 2, Robertson teaches the information processing apparatus wherein said

intermediate data generating means and said display image generating means operate

asynchronously with each other (FIG.2, col.5, lines 38-65, *generating and displaying*).

As per claim 3, Robertson teaches the information processing apparatus wherein said first

and second means are controlled by control means, and said intermediate data generating means

operates under the control of said first means, to generate and renew said intermediate data for

displaying said information object, said display image generating means operating

simultaneously with said intermediate data generating means, under the control of said second

means, to generate a display image of said information object from said generated and renewed

intermediate data (FIG.9, col.8, lines 31-39 *graphical object control*) .

As per claim 4, Robertson teaches the information processing apparatus wherein said

holding means holds at least one content type specific data processing means, said at least one

content type specific data processing means including at least intermediate data generating

means for generating intermediate data of an information object of one content type and display

image generating means for generating a display image of the information object of said one

content type (FIG.9, *content part*, col.8, lines 40-48).

As per claim 6, Robertson teaches the information processing apparatus wherein said

intermediate data generating means is implemented in the form of intermediate data generating

program codes, and said display image generating means is implemented in the form of display

image generating program codes; and said apparatus comprises further means for capturing said

intermediate data generating program codes and said display image generating program codes

into said holding means from an external device or a communication line (col.13 line 10- col.14,

line 7, *program code instructions*).

As per claim 7, Robertson teaches the information processing apparatus further

comprising: means for smoothly changing said visual field data; a memory for storing therein

said generated intermediate data (FIG.6, col.7, lines 41-46, *data change*); a display memory, and

means for rendering said display image on to said display memory (FIG.1, col.4, lines 50-52,

internal memory); said first means determining for each of said plurality of information objects

whether or not intermediate data for displaying that information object should be generated, in

accordance with the geometric relation between said visual field and that information object

(col.10, lines 61-64, *object generation circuitry*); said second means determining for each of the

information objects for which intermediate data has been generated whether a display image of

that information object should be generated from said generated intermediate data, in accordance

with the geometric relation between said visual field and that information object (col.11, lines 5-

10, *displaying page object*).

As per claim 8, Robertson teaches the information processing apparatus further comprising: means for assigning a display priority to each of said plurality of information objects (col.7, lines 37-60, *display priority indicated by page sequence*); said first means comparing said display priority of said particular information object with a predetermined threshold to thereby determine whether or not the intermediate data of said particular information object should be generated; said second means comparing said display priority of said particular information object with a predetermined threshold to thereby determine whether or not the display image of said particular information object should be generated (col.5, lines 12-21, *predetermined context dependent*).

As per claim 10, Robertson teaches the information processing apparatus wherein said display image generating means determines a form in which said display image is displayed, in accordance with the geometric relation between said visual field and said particular information object (col.8, lines 2-30, *spatial perspective of which content is displayed*).

As per claim 11, Robertson teaches the information processing apparatus wherein display priorities are assigned to respective ones of said plurality of information objects, and when the display image of said particular information object is to be displayed, said display image generating means determines a form in which said display image of said particular information object is to be displayed, in accordance with the display priority of said particular information object (col.7, lines 37-60, *display priority indicated by page sequence*).

As per claim 13, Robertson teaches the information processing apparatus further comprising: third means for selecting one of said plurality of information objects as a

representative object and defining said visual field by defining a geometric relation of said

representative object to said visual field, said third means altering said representative object,

without changing the geometric relations of said plurality of information objects to said visual

field, as said visual field shifts in said virtual space (col5, lines 50-65, *page object is*

representation) ; said first means traversing linkages between said plurality of information

objects, starting with said representative object, to thereby determine whether or not said

intermediate data of said particular information object should be generated (col.5, line 66-col.6,

line 8, *traverses page objects*).

As per claim 14, Robertson teaches the information processing apparatus wherein display

priorities are assigned to respective ones of said plurality of information objects, and said third

means selects one of said plurality of information objects having a highest display priority as

said representative object (col.7, lines 37-60, *display priority indicated by page sequence*).

Claims 15-18, 20-22 and 24-25 are similar in scope to claims 1-4, 8-9, 11 and 13

respectively, and therefore are rejected under similar rationale.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

7.   Claim 5, 9, 12, 19 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Robertson et al. ("Robertson", US 6,486,895) n view of Gounares et al. ("Gounares", US

6,681,370).

As per claim 5, while Robertson teaches the information processing apparatus wherein

said holding means holds in an executable manner at least data processing means specific to said

content type, said data processing means including said intermediate data generating means, said

display image generating means, content data capturing means specific to said content type for

capturing content data of said particular information object (FIG.2, step 202, *generate page*

objects for each web page, col.5, lines 50-52). Robertson does not specifically teach a data

deleting means specific to content type for deleting generated data in a data memory. Gounares

teaches a method of information synchronization, wherein a data deleting means specific to

content type for deleting generated data in a data memory (col.15, lines 35-41, *deleting data*

content). It would have been obvious to an artisan at the time of the invention to combine

Gounares' teaching with the apparatus of Robertson because it allows for flexibility by providing

document change and update capabilities.

As per claim 9. Robertson teaches the information processing apparatus comprises a

memory region for storing therein said intermediate data and managing data for said particular

information object (FIG.1, col.4, lines 50-52, *internal memory*), and means for assigning display

priorities to respective ones of said plurality of information objects (col.7, lines 37-60, *display*

priority indicated by page sequence); said first means comparing said display priority of said

particular information object with a predetermined threshold to thereby determine whether or not

the intermediate data of said particular information object should be generated or renewed, said

first means causing said intermediate data generating means to generate or renew said

intermediate data of said particular information object when the display priority of said particular

information object is higher than the predetermined threshold (col.5, lines 12-21, *predetermined*

context dependent); said first means causing said data deleting means to delete said intermediate

data of said particular information object in said memory region when the display priority of said

particular information object is lower than a predetermined threshold; said first means deleting

the managing data of said particular information object in said memory region when the display

priority of said particular information object is lower than a predetermined threshold (col.15,

lines 35-41, *deleting data content*).

As per claim 12, Robertson teaches the information processing apparatus further

comprising: a memory region for storing therein display data including intermediate data for

displaying said plurality of information objects (FIG.1, col.4, lines 50-52, *internal memory*); and

memory managing means for detecting an amount of said memory region occupied by said

display data and time-sequentially deleting at least part of intermediate data in said memory

region which has not been used for display image generation for the longest time (col.9, lines 45-

50, *temporal parameters*).

Claim 19 is similar to claim 5 and therefore is rejected under similar rationale.

Claim 23 is similar to claim 12 and therefore is rejected under similar rationale.

Conclusion

8.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Robertson et al. (US 6,486,895) teaches display system for displaying lists of linked documents

Gounares et al. (US 6,681,370) teaches HTML/XML document synchronization

Nagahara (US 6,608,640) teaches information processing apparatus and information display method

Mackinlay (US 6,088,032) teaches computer-controlled display system for displaying a three-dimensional document workspace having a means for prefetching linked documents

Cheng (US 6,724,407) teaches method and system for displaying conventional hypermedia files in a 3D viewing environment

Miller et al. (US 6,147,703) teaches electronic camera with image review

Yagishita et al. (US 6,683,990) teaches image data encoding apparatus

Inquiries

9.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh T Nguyen whose telephone number is (703) 305-8649. The examiner can normally be reached on Mon.-Fri. (7:00 a.m.- 4:00 p.m.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid can be reached on (703) 308-0640. The fax phone numbers for the organization where this application or proceeding is assigned are as follows:

(703) 746-7238 [After Final Communication]

(703) 746-7239 [Official Communication]

(703) 746-7240 [For status inquiries, Draft Communication]

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is

(703) 305-3900.

Anh T Nguyen
Examiner
Art Unit 2174

KRISTINE KINCAID
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100